TSS LPKH Ripping and Burning Lesson Plan

Slides TSS Burning and Ripping.pptx

Resources:

* **Enough music CD’s for class to rip music from**
* HO - CD and DVD Burning Handout.doc
* TSS LPKH Ripping and Burning Lesson Plan.docx

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| S2 Terms | * Burning – writing data to CD or DVD * Ripping – converting CD audio to mp3 / wma * CD 0.7 GB (700kB) * DVD 4.6 GB single layer; 8.5 GB double layer * Blu-ray 25 GB single layer; 50 GB double layer * +R, -R – Discs that can only be written once * +RW, -RW – can be written to and erased |
| S3 Audio | * Commercial CD’s – highest quality, 20 tracks * MP3, WMA, AIFF are compressed file formats * Compression:   + loses quality – very small   + Can fit ~ 10 times the number of tracks   + Player must be capable of ‘decoding’   + Can create Audio disks from compressed files (but not at original quality)   + Has other ‘compressed’ formats |
| **Students DO** | **Rip Music from a CD**   * Insert CD. Wait ~ 30secs. Play with Windows Media Player * In Media Player screen: Click ‘Rip CD’ icon top right corner  OR in Library View: Click ‘Rip CD’ button on the toolbar * Check Rip Settings on Toolbar: Format, Quality, More Options, Where saved |
| S4 Video | * Commercial DVD’s:   + Are in industry format;   + double layered;   + protected. * Video cameras or downloaded videos:   + usually in .avi or .mp4 or similar ‘compressed’ format   + To copy just use standard data Copy methods (they are files)   + May not play on all DVD players or TV’s due to missing ‘codecs’ |
| S5 Burning Methods | * Via Windows * Via Picasa * Via Windows Media Player * Paid Burning programs – eg Nero * **Free** Burning programs – eg **CDBurnerXP** * Hardware: Inbuilt or portable DVD burner |
| S6 Copying DVD’s | * Commercial ones - Legality?? * Often protected with DRM * Need to compress or re-author before burning * **DVDShrink** common compression program. It creates files in a VIDEO\_TS folder. Also an AUDIO\_TS folder with nothing in it. * Then burn as ‘Video DVD’ * If what you are copying is a pre-burnt DVD then use ‘Copy or grab disc’ |
| **Students DO** | **Install, open and explore a free burning program**   * Start CDBurnerXP program * 5MB download from [www.cdburnerxp.se/en/home](http://www.cdburnerxp.se/en/home) Make sure to avoid installation of extra software such as Dragons of Atlantis * Locate and discuss the settings on slide 7 |
| S7 CDBurner XP Copy Commands | * **Data Disc:**  Files – programs, pictures, documents; audio, video, create ISO etc. * **Video DVD:** Creates same file structure as a commercial DVD, (VIDEO\_TS; AUDIO\_TS) * **Audio Disc:** Creates the same structure as a commercial CD * **Copy Disc:** Copy audio and data discs * **Burn ISO image:** Sector by sector ‘image’ of a CD or DVD. Common use - create a boot disc. * **Erase Disc:** Make a rewritable disc blank. |
| **Students DO** | **Using CDBurnerXP, create a ‘compilation’ of files ready for burning**   * Start CDBurnerXP. * Select Data Disc * Add files or folders to the compilation area.  Note the ‘size’ of the compilation increases as you add files / folders * When ready, click ‘Burn’ and usually just follow the prompts. * When exiting, note the option to save the compilation. Normally click No |
| S8 Putting music on MP3 players | * Read the instructions. Some supply programs * Apple uses iTunes to ‘sync’ items * Android:   + Is just another ‘Drive’ to Windows   + Music or Video folder.   + Use Windows Explorer to manage   + Or Androids ES File Manager |
| S9-11 Trivia how analog becomes digital | * Analog signal gets sampled at regular intervals. Height recorded * Heights converted to binary 1’s and 0’s * 1’s and 0’s burnt to CD track as uniform hills and holes * Laser reads tracks, gets 1’s and 0’s from hills and holes * Analog signal recreated |